**WHAT IS CLAIMED IS:**

1. An optical storage device capable of at least reproducing information recorded on first and second optical storage media different in distance from a medium surface on which a light beam is incident to a recording surface and in operating wavelength, said optical storage device comprising:

a first light emitting element for emitting a light beam having a first wavelength;

a second light emitting element for emitting a light beam having a second wavelength different from said first wavelength;

a first photodetector for detecting a reproduction signal from a light beam reflected on said first optical storage medium;

a second photodetector for detecting a reproduction signal from a light beam reflected on said second optical storage medium;

a first optical element for combining optical paths of said light beams emitted from said first and second light emitting elements;

a first collimator lens located between said first light emitting element and said first optical element for collimating said light beam emitted from said first light

emitting element;

a second collimator lens located between said second light emitting element and said first optical element for collimating said light beam emitted from said second light emitting element;

an objective lens located commonly on said optical paths combined by said first optical element for optimally focusing said light beam emitted from said first light emitting element onto said first optical storage medium;

a second optical element located between said second light emitting element and said first optical element for producing a rotationally symmetrical aberration compensating for an aberration occurring on said second optical storage medium, in said light beam emitted from said second light emitting element; and

an aperture limiting member for limiting the diameter of said light beam emitted from said second light emitting element.

2. An optical storage device according to claim 1, wherein said first optical element comprises a beam splitter.

3. An optical storage device according to claim 1, wherein said second optical element comprises an optical

element for converting said light beam emitted from said second light emitting element into a light beam having a central ray lying on the optical axis of said optical element and outermost peripheral rays parallel to or nearly parallel to said central ray.

4. An optical storage device according to claim 1, wherein said second optical element comprises a plano-concave lens having a first plane surface on which said light beam collimated by said second collimator lens is incident, a second peripheral plane surface opposed to said first plane surface, and a central concave surface formed continuously to said second peripheral plane surface and opposed to said first plane surface;

peripheral rays of said light beam collimated by said second collimator lens being passed through said second peripheral plane surface of said plano-concave lens, the remaining rays being passed through said central concave surface of said plano-concave lens.

5. An optical storage device according to claim 4, wherein said aperture limiting member comprises a lens holder for holding said plano-concave lens.

6. An optical storage device according to claim 1, wherein said second collimator lens has the same focal length as that of said first collimator lens, and said

second light emitting element is located at a position far from the focal point of said second collimator lens by a predetermined distance.

7. An optical storage device capable of at least reproducing information recorded on first and second optical storage media different in distance from a medium surface on which a light beam is incident to a recording surface and in operating wavelength, said optical storage device comprising:

a first light emitting element for emitting a light beam having a first wavelength;

a second light emitting element for emitting a light beam having a second wavelength different from said first wavelength;

a first photodetector for detecting a reproduction signal from a light beam reflected on said first optical storage medium;

a second photodetector for detecting a reproduction signal from a light beam reflected on said second optical storage medium;

an optical element for combining optical paths of said light beams emitted from said first and second light emitting elements;

a first collimator lens located between said first

light emitting element and said optical element for collimating said light beam emitted from said first light emitting element;

a second collimator lens located between said second light emitting element and said optical element for collimating said light beam emitted from said second light emitting element;

an objective lens located commonly on said optical paths combined by said optical element for optimally focusing said light beam emitted from said first light emitting element onto said first optical storage medium;

a plano-concave reflecting mirror located between said optical element and said objective lens obliquely with respect to said optical paths combined by said optical element, said plano-concave reflecting mirror having a first plane surface on which said light beam collimated by said first or second collimator lens is incident, a second peripheral plane surface opposed to said first plane surface, and a central concave surface formed continuously to said second peripheral plane surface and opposed to said first plane surface; and

an aperture limiting member for limiting the diameter of said light beam emitted from said second light emitting element;

said plano-concave reflecting mirror further having a wavelength-selective reflecting film formed on said first plane surface for selectively reflecting said light beam having said first wavelength and transmitting said light beam having said second wavelength and a total-reflection film formed on said second peripheral plane surface and said central concave surface;

said plano-concave reflecting mirror producing a rotationally symmetrical aberration compensating for an aberration occurring on said second optical storage medium, in said light beam emitted from said second light emitting element.

8. An optical storage device according to claim 7, wherein said optical element comprises a beam splitter.

9. An optical storage device according to claim 7, wherein peripheral rays of said light beam collimated by said second collimator lens are reflected on said second peripheral plane surface of said plano-concave reflecting mirror, and the remaining rays are reflected on said central concave surface of said plano-concave reflecting mirror.

10. An optical storage device capable of at least reproducing information recorded on first and second optical storage media different in distance from a medium

surface on which a light beam is incident to a recording surface and in operating wavelength, said optical storage device comprising:

a first light emitting element provided on a substrate for emitting a light beam having a first wavelength;

a second light emitting element provided on said substrate for emitting a light beam having a second wavelength different from said first wavelength;

a first photodetector provided on said substrate for detecting a reproduction signal from a light beam reflected on said first optical storage medium;

a second photodetector provided on said substrate for detecting a reproduction signal from a light beam reflected on said second optical storage medium;

a collimator lens for collimating said light beam emitted from said first light emitting element;

an objective lens located downstream of said collimator lens for optimally focusing said light beam emitted from said first light emitting element onto said first optical storage medium; and

a plano-concave reflecting mirror located between said first and second light emitting elements and said collimator lens obliquely with respect to optical paths

of said light beams emitted from said first and second light emitting elements, said plano-concave reflecting mirror having a first plane surface on which said light beam emitted from said first or second light emitting element is incident, a second peripheral plane surface opposed to said first plane surface, and a central concave surface formed continuously to said second peripheral plane surface and opposed to said first plane surface;

said plano-concave reflecting mirror further having a wavelength-selective reflecting film formed on said first plane surface for selectively reflecting said light beam having said first wavelength and transmitting said light beam having said second wavelength and a total-reflection film formed on said second peripheral plane surface and said central concave surface;

said second light emitting element being located at a position far from the focal point of said collimator lens by a first predetermined distance in a first direction and spaced a second predetermined distance in a second direction perpendicular to said first direction so that the central ray of said light beam emitted from said second light emitting element and next reflected by said plano-concave reflecting mirror coincides with the

optical axis of said collimator lens.

11. An optical storage device according to claim 10, wherein peripheral rays of said light beam emitted from said second light emitting element are reflected on said second peripheral plane surface of said plano-concave reflecting mirror, and the remaining rays are reflected on said central concave surface of said plano-concave reflecting mirror.